

From: "Cochran, Greg (G)" <ggcochran@dow.com>
To: George Bruchmann <bruchmag@michigan.gov>
Date: Fri, May 25, 2007 12:57 PM
Subject: RE: Issue of Concern Regarding Exposure Unit Sampling - Priority 1 and 2 Properties

George:

I am not planning on traveling to Lansing for the meeting today. I also do not think that the topic of exposure point sampling is a high priority matter for immediate resolution in comparison to the other issues that we need to focus upon and resolve to continue to make progress.

My understanding is that the statistical approach used to determine the exposure point concentrations is dependent on the "applicable criteria" which is itself is dependent on the exposure pathway that was used to determine the applicable criteria and upon an evaluation of the available data in relationship to the criteria. At this time we do not have any of the variables to review.

I do not read the section of the RIWP that you sent to me as the commitment to use any particular approach to evaluate "exposure point concentrations." It does not rule in or rule out the use of any MDEQ guidance that exists today or that may exist in the future or any other guidance that the is deemed appropriate for use. I do not understand that Dow's employees or consultants committed to the use of a specific statistical guidance document and this is supported by the lack of reference in the RIWP to a specific document.

We acknowledge that MDEQ has approved the Geomorph characterization process subject to the ability of MDEQ to require additional sampling. The need for and the basis for requiring additional sampling seems to me to be both a technical discussion and a discussion for a later day.

Greg

-----Original Message-----

From: George Bruchmann [mailto:bruchmag@michigan.gov]
Sent: Thursday, May 24, 2007 4:23 PM
To: Cochran, Greg (G)
Cc: Baker, Ben (BF); Gustafson, David (DW); Cheryl Howe; Deborah Mackenzie-Taylor; Delores Montgomery; Jim Sygo; Allan Taylor
Subject: Issue of Concern Regarding Exposure Unit Sampling - Priority 1 and 2 Properties

Greg,

To follow up on our discussion yesterday, I wanted to review the background on the Priority 1 and 2 statistically based sampling issue that we have been discussing with Dow over the last year. Prior to meetings conducted on Tuesday and Wednesday of this week, the MDEQ had the understanding that there was agreement on this core technical issue which is addressed in Section 9.1.13 of the December 1, 2006, Remedial

Investigation Work Plan (excerpted page attached).

As you are aware, the MDEQ and Dow have committed to a path forward for approval of the RIWP that utilizes "placeholders" for key unresolved sections (e.g., HHRA, ERA) and an interactive review process that will allow revision and approval of the RIWP in a more efficient manner.

The issue of exposure unit level sampling on Priority 1 and 2 properties was collaboratively addressed during the development of this section of the RIWP. The concept discussed and previously agreed to is that some "exposure unit" level sampling would be done at Priority 1 and Priority 2 properties after the initial GeoMorph-based characterization is completed. We continue to believe that GeoMorph does a good job at predicting ranges of concentrations on specific "geomorphic surfaces" but we need to make sure that it gives adequate information at the "exposure unit" level - especially where people are living and/or farming.

The GeoMorph process would be used to determine where Priority 1 and 2 properties may reasonably be above the applicable criteria. A subset of these properties would be selected and more detailed exposure unit based sampling would be conducted using one or more of the strategies laid out in the MDEQ's Statistical Sampling Strategies Training Manual guidance document. In this way we can tie the GeoMorph process to the more standard process for evaluation of concentrations and exposure under Parts 201 and 111 (e.g., at a house on a 1/4 acre parcel). This process to link GeoMorph to the standard exposure unit evaluation, which is how the MDEQ routinely applies cleanup criteria, and is necessary to firmly support our technical and regulatory decisions on the land uses of highest concern - especially on a highly visible project which is likely to be precedent setting for the MDEQ. We see this work as a key component of our approval of the GeoMorph process and consistent with prior agreements for use of the GeoMorph process on areas where we are most concerned about exposure.

This is also consistent with our May 3, 2007, approval letter you on the GeoMorph process which states, in part:

"The MDEQ continues to reserve the right to require additional sampling, as necessary, to refine the understanding of the distribution of contamination in and between the identified depositional units (geomorphic surfaces). As with conventional site investigation techniques, the need to conduct additional sampling will be based, in a large part, on reasonable predictions of future land use and the level of certainty required for remedial decision-making."

Based on our conversation yesterday, I believe that it is possible that there is simply a communication problem related to this issue and that Dow and the MDEQ remain in agreement on this issue. However, because this is a core component of the MDEQ's approval of the GeoMorph process, we believe it is necessary to clarify, and hopefully resolve, this issue immediately.

I look forward to further discussion with you on this issue either tomorrow (before or after the staff-level meeting among Dow, Water Bureau, and WHMD) to discuss the additional characterization data and

NPDES issues related to the Reach D PCAP/IRA) or next week if tomorrow is not workable.

Thank you,

George Bruchmann, Chief
Waste & Hazardous Materials Division
Michigan Department of Environmental Quality
tel.: 517.373.9523; fax: 517.373.4797;
e-mail: bruchmag@michigan.gov

CC: "Baker, Ben (BF)" <bfbaker@dow.com>, "Gustafson, David (DW)" <DWGustafson@dow.com>, "Wright, Peter (PC)" <PCWright@dow.com>, Cheryl Howe <HOWEC@michigan.gov>, Deborah Mackenzie-Taylor <MACKENZD@michigan.gov>, Delores Montgomery <MONTGOMD@michigan.gov>, Jim Sygo <SYGOJ@michigan.gov>, Allan Taylor <TAYLORAB@michigan.gov>